

Spent Nuclear Fuel Project

N. C. Boyter, Vice President/(509) 373-3725

K East Basins - Fuel Transfer System Operations



Canister Storage Building – Multi-Canister Overpack Welding



Sludge Transportation System – Test loading large diameter container into casks at K Basins



K West Basins

Fuel Retrieval System



Canister Cleaner Operations



Loading Cask on Trailer at K West

Cold Vacuum Drying Facility – Multi-Canister Overpack Processing



OVERVIEW

The Spent Nuclear Fuel (SNF) Project consists of Project Baseline Summary (PBS) RL-RS03, *Spent Nuclear Fuel*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of May 2003.

NOTABLE ACCOMPLISHMENTS

Fuel Movement Activities: The project successfully completed the Tri-Party Agreement (TPA) milestone M-34-27-T01 target date to ship 1,252 Metric Tons of Heavy Metal (MTHM) of spent nuclear fuel by May 31, 2003. This achievement was completed three days early and marks the removal of just over 60 percent of the fuel from the K Basins.

During the month of May, the project shipped 15 multi-canister overpacks (MCOs) containing approximately 86 MTHM from the K West Basin to the Cold Vacuum Drying Facility. As of June 16, 2003, a cumulative total of 243 MCOs containing approximately 1,293 MTHM have been shipped; the project is two MCO shipments and 33.97 MTHM (13 days) ahead of schedule.

Fuel Transfer System (FTS): The project completed 24 FTS shipments (240 canisters) during May. As of June 16, 2003, a cumulative total of 123 FTS shipments (1,230 canisters) were completed. Operation of the K East and K West FTS lift tables has improved significantly following an extensive maintenance and repair activity.

MCO Welding at Canister Storage Building (CSB): The project welded and "N" stamped nine MCOs during May. As of June 16, 2003, the project welded a cumulative total of 44 MCOs and is 11 MCOs (18 days) ahead of schedule.

Sludge Water System (SWS) - K East: The SNF Project continues to focus on the resolution of SWS technical issues and concerns associated with the operational pause of the Contractor Operational Readiness Review (ORR). Corrective actions in operations, technical baseline verification, and Readiness Self Assessment verification are underway to support the declaration of readiness to resume the Contractor ORR before July 2, 2003, and the ultimate commencement of sludge removal by July 31, 2003.

T Plant has received authorization by the Department of Health to use their stack and is ready to receive sludge, pending RL approval.

SWS – K West: Continued preconceptual planning for K West. A dedicated team continues to focus on operability utilizing existing systems, structures and components. The Request for Proposal for the design, fabrication and testing of K West sludge systems is drafted and under review to support issuance on June 30, 2003.

Site-wide Activities: A Memorandum of Understanding between Fast Flux Test Facility (FFTF), SNF Project, and Plutonium Finishing Plant (PFP) for management of fuel currently at FFTF and PFP was approved. SNF received the eighth of eighteen planned Shippingport spent fuel shipments from T Plant.

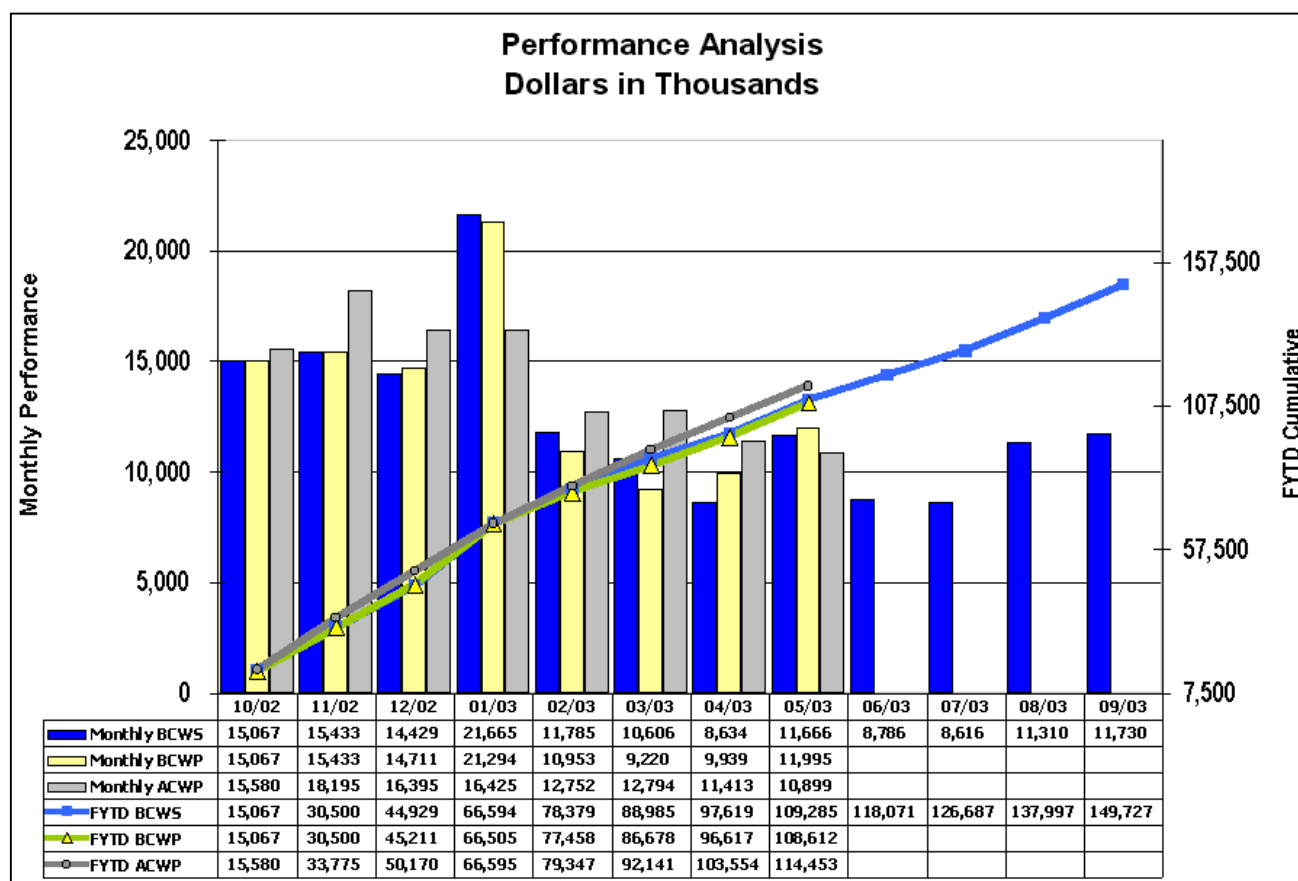
Deactivation: Two basin deactivation alternatives have been identified, developed, and evaluated against the current project deactivation baseline. Alternatives being considered are basin encapsulation and removal, and a series of integrated improvements to the baseline approach. These alternatives have been subjected to a detailed internal review and evaluation. The recommended approach will be submitted to RL by June 30, 2003.

FY 2003 SCHEDULE/COST PERFORMANCE (\$000)

Schedule Variance Analysis (-\$673K): The unfavorable one percent schedule variance is primarily due to schedule delays in the following areas: K East SWS operations and MCO fabrication deferral. A Baseline Change Request is in process to incorporate baseline acceleration initiatives and FH funds reallocation, which will mitigate the schedule variance.

Cost Variance Analysis (-\$5,841K): The unfavorable five percent cost variance is primarily due to the following areas: K East and K West fuel transfers; K East SWS (Engineering, Procurement and Construction); MCO Welding at the CSB; and Technical Support and Program Management. A Baseline Change Request is in process to incorporate baseline acceleration initiatives and FH funds reallocation, which will mitigate the cost variance.

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-RS03 Spent Nuclear Fuel	109,285	108,612	114,453	-673	-1%	-5,841	-5%	149,727



MILESTONE ACHIEVEMENT

Number	Milestone Title	Type (TPA/ DNFSB/PI)	Due Date	Actual Date	Forecast Date	Status/ Comments
M-34-29 (S15-02-001)	Complete K East Basin and K West Basin facility modifications for Alternate Fuel Transfer System casks transportation system	Tri-Party Agreement (TPA)	3/31/02	9/12/02		Complete
M-34-12-T01 (S15-02-001)	Complete construction of Sludge Water System (Construction Completion Document Section IIA.)	TPA	09/30/02	3/4/03		Complete
M-34-17 (S00-02-901)	Initiate K East to K West fuel transfer	TPA/Performance Incentive (PI)	11/30/02	11/25/02		Complete
M-34-18A (S03-03-068)	Complete removal of 957 MTHM of SNF from the K West Basin	TPA/DNFSB/PI	12/31/02	1/7/03		Complete
M-34-08 (S04-02-205)	Initiate full scale K East basin sludge removal	TPA/DNFSB/PI	12/31/02		7/31/03	Forecasted to complete 7/31/03.
M-34-27-T01 (S03-03-069)	Complete removal of 1252 MTHM of SNF from K West Basin	TPA	5/31/03	5/28/03		Completed 3 days ahead of schedule.
M-34-28* (S03-03-070)	Complete removal of 1619 MTHM from the K West Basin	TPA	12/31/03		12/31/03	On schedule
M-34-25-T01 (S03-04-001)	Complete transfer of K East Basin SNF to K West Basin	TPA/PI	5/31/04		11/2/03	On schedule
M-34-18B (S00-00-902)	Complete removal of all K Basin SNF	TPA/DNFSB/PI	7/31/04		2/28/04	On schedule
M-34-10* (S04-01-215)	Complete sludge removal from K Basins	TPA/DNFSB/PI	8/31/04		8/31/04	On schedule. Change request proposed to complete K West by June 2005.
M-34-23* (S10-99-953)	Start K East water removal	TPA	9/30/04		9/30/04	On schedule
S07-04-005	Consolidate spent fuel in the 200 Area	PI	9/30/04		9/30/04	On schedule
M-34-09-T01* (S04-05-516)	Complete K Basins rack and canister removal	TPA	1/31/05		1/31/05	On schedule
M-34-24 (S10-99-954)	Complete K East Basin Water removal	TPA	9/30/05		9/30/05	On schedule

MILESTONE ACHIEVEMENT (CONTINUED)

Number	Milestone Title	Type (TPA/ DNFSB/PI)	Due Date	Actual Date	Forecast Date	Status/ Comments
M-34-22 (S10-99-952)	Complete K West Basin water removal	TPA	8/31/06		8/31/06	On schedule
M-34-21-T01 (S10-99-951)	Initiate full-scale K West Basin water removal	TPA	10/31/05		10/31/05	On schedule
S06-06-005	Transfer of K Basins to the River Corridor Contractor	PI	10/30/05		10/30/05	On schedule
M-34-00A (S10-99-955)	Complete removal of K Basin fuel/sludge/debris/water from K Basins	TPA (Major)	7/31/07		7/31/07	On schedule

*Working to an agreed path forward with RL and the Environmental Protection Agency to provide recommendations by June 30, 2003.

FY 2003 FH FUNDS VS FORECAST (\$000)

	Expected Funds	Spend Forecast	Variance
RL-RS03 Spent Nuclear Fuel			
Project Completion - Operating	\$ 164,498	\$ 165,090	\$ (592)

NOTE: A spending forecast of \$158.2M (\$9.8M over budget) is projected to address technical issues and maintain the fuel production schedule at the K Basins, CVD and CSB; to complete installation and startup of the K East SWS; and to start-up and maintain the MCO welding production rate at the CSB. These acceleration initiatives are being incorporated into the baseline via a pending Baseline Change Request. A cost estimate of \$8.9M has been added to support this acceleration, for a total spending forecast of \$165,090K for FY 2003. Fluor Hanford has identified funding of \$164,498K to resolve the cost variance and support the acceleration.

ISSUES

SNF Project SWS – K East: TPA Milestone M-34-08 to begin K East sludge movement by December 31, 2002, is behind schedule. The contractor ORR started April 23, 2003. An operational pause was called on April 27, 2003, due to procedural deficiencies, technical basis deficiencies, and readiness preparation. The SNF Project continues to focus on the resolution of SWS technical issues and concerns associated with the operational pause. Corrective actions in operations, technical baseline verification, and Readiness Self Assessment verification are underway to support the declaration of readiness to resume the Contractor ORR before July 2, 2003, and the ultimate commencement of sludge removal by July 31, 2003.

Fuel Production – FTS Shipments: Removal of all K Basin fuel by July 31, 2004, is based upon the completion of FTS shipments by January 31, 2004. As of June 16, 2003, the project is 44 shipments behind schedule. The project continues to focus on resolving equipment failure issues, which are the primary source of FTS shipment delays. Operation of the K East and K West FTS lift tables has improved significantly following an extensive maintenance and repair activity.